

SEARS, ROEBUCK AND COMPANY  
MAIL ORDER PLANT, MERCHANDISE BUILDING  
924 South Homan Avenue  
Chicago  
Cook County  
Illinois

HABS No. IL-1187-A

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

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Department of the Interior  
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HISTORIC AMERICAN BUILDING SURVEY  
SEARS, ROEBUCK AND COMPANY MAIL ORDER PLANT, MERCHANDISE BUILDING  
HABS No. IL-1187-A

Location: 924 South Homan Avenue  
(Homan Avenue at Arthington Street)  
Chicago, Cook County, Illinois

Quad: Englewood Quadrangle, Illinois - Cook County

UTM: 16.441030.4635340

Dates of Construction: 1905-1917

Architects: George C. Nimmons and William K. Fellows  
George C. Nimmons & Co. (additions)  
Nimmons & Co. (additions)

Engineers: Adams and Schwab, Consulting Engineers  
E.C. and R.N. Shankland, Structural Engineers

Builder: Thompson Starrett Company

Present Owner: Sears, Roebuck and Company  
Hoffman Estates, Illinois

Present Occupant: Sears, Roebuck and Company

Present Use: Vacant

Significance: The Merchandise Building was one of the first buildings completed for the Mail Order Plant in 1905-1906. It was designed by the nationally-known architectural firm of Nimmons and Fellows, with additions designed by successor firms George C. Nimmons & Co. and Nimmons & Co. The Merchandise Building was the largest building and housed the majority of the company's employees at the Mail Order Plant. In a bustling complex, the Merchandise Building was the center of activity. All incoming and outgoing goods passed through the Merchandise Building. All of the other building at the site provided support for the activities within the Merchandise Building by offering administration, manufacturing, and other support functions. The Mail Order Plant and its central Merchandise Building have been described as "a huge, finely tuned machine for receiving and holding merchandise and for filing and shipping orders."<sup>1</sup>

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<sup>1</sup> James C. Worthy, *Shaping an American Institution: Robert E. Wood and Sears, Roebuck*, page 29.

Sears, Roebuck and Company Mail Order Plant, Merchandise Building  
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Report Prepared by:

Deborah Slaton, Senior Architectural Conservator  
Jeffrey Koerber, Architect/Engineer II  
Harry J. Hunderman, Senior Consultant  
Wiss, Janney, Elstner Associates, Inc.  
29 North Wacker Drive, Suite 555  
Chicago, Illinois 60606

Date:

April 20, 1994

**PART I: HISTORICAL INFORMATION**

**A. Physical History:**

**1. Dates of erection:**

**a. 1905 construction**

Merchandise Building - basement to ninth floor, Sections A, B, C, D, E, F, G, H, I

Merchandise Building Annex A - basement to third floor Sections J, K, L, M, N, O

Merchandise Building Annex B - basement to third floor Sections P, Q, R, S

**b. 1910 construction**

Addition to Annex A - fourth to ninth floors, Sections J, K

Addition to Annex B - fourth to ninth floors, Sections P, Q

**c. 1912 construction**

Grocery Building - basement to sixth floor, Sections 11 and 12

Box Factory - partial basement, first and second floors

**d. 1913-1916 construction**

Addition to Annex B - fourth to ninth floors, Sections R, S

**e. 1917 construction**

Addition to Annex A, fourth to ninth floor Sections L, M, N, O

**f. Later construction and alterations**

Interior renovations (as described below)

Alteration of entry area facade at first and second floors (1959)

**2. The Architects: Nimmons and Fellows**

The firm of Nimmons and Fellows was responsible for the design of the original buildings of the Sears, Roebuck and Company Mail Order Plant in Chicago, including the Merchandise Building and its Annexes, the Administration Building, the Printing and Advertising Building, the Power House, and the Paint Factory.

- a.** George Croll Nimmons, FAIA. George Croll Nimmons was born in Wooster, Ohio, in 1867 and educated at the local academy. After graduating, he studied architecture in Europe. Nimmons returned to the United States and in 1885 entered the office of Burnham &

Root in Chicago as a draftsman. In 1897, he formed a partnership with William K. Fellows, as described below. In 1898, Nimmons married Justine V. Wheeler, and the couple had three children. The partnership of Nimmons and Fellows lasted until 1910. From 1910 until 1917, Nimmons practiced privately as principal of George C. Nimmons & Co., and from 1920 until 1933 as principal of Nimmons & Co. His work in this period in Chicago included the Franklin Building (1912), the C.P. Kimball & Co. Building, the Reid, Murdoch & Co. Building (1913), and the Adams Schaaf Building (1916), and the Union Special Machines Company (1918). During the 1920s, his work in Chicago included the Kelley Building (1921) and the American Furniture Mart (1923, 1926). From 1933, Nimmons was senior partner in the firm of Nimmons, Carr & Wright, with George W. Carr and Clark C. Wright, as described below. Nimmons retired in 1945, and died on June 17, 1947.<sup>2</sup>

During and after his tenure with Nimmons and Fellows, Nimmons published extensively, including articles on the design of several of the Sears, Roebuck buildings across the country. He was the author of a series of articles on "Modern Industrial Plants" in *The Architectural Record* in 1918 and 1919.<sup>3</sup> Nimmons also wrote essays on the future of concrete, and an introduction to a college textbook entitled "The Significance of the Fine Arts."<sup>4</sup>

- b. William Kinne Fellows, FAIA. William K. Fellows was born on September 3, 1870, in Winona, Minnesota, where he received his early education. Fellows studied at the Columbia University School of Mines and Architecture, and trained in architectural offices in New York City. He also studied for 18 months in Europe on a traveling fellowship. Fellows returned to the United States, where he settled in Chicago and established a firm with George C. Nimmons in which he practiced from 1897 until 1910, as described below. In 1898, Fellows married Elizabeth Steele. From 1911 until 1925, Fellows practiced with John L. Hamilton and Dwight Perkins in the firm Hamilton, Fellows & Perkins. This firm specialized in

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<sup>2</sup> Henry F. Withey and Elsie Rathburn Withey, *Biographical Dictionary of American Architects* (Los Angeles: Hennessey & Ingalls, Inc., 1970), page 442.

<sup>3</sup> George C. Nimmons, "Modern Industrial Plants," Part I, *The Architectural Record*, Volume 44, Number 5, November, 1918, pages 414-421; Part II, December 1918, page 531-550; Part III, January 1919, pages 27-44; Part IV, February 1919, pages 148-168; Part V, March 1919, pages 262-282; Part VIa, April 1919, pages 343-355; Part VIb, May 1919, pages 450-470; and Part VII, June 1919, pages 506-525. Part VII deals specifically with the Sears, Roebuck and Company Mail Order Plant in Chicago.

<sup>4</sup> George C. Nimmons, Introduction to *The Significance of the Fine Arts* (Committee on Education of the American Institute of Architects and the Committee on Architecture and Art of the Association of American Colleges, published by the Marshall James Company, 1923).

school architecture, and designed high schools at Bay City, Michigan (1918); Manitowoc, Wisconsin (1922); and Evanston, Illinois. Fellows also designed several buildings for University of Nanking in China. After 1925 and until retirement, Fellows practiced privately. He died on August 8, 1948.<sup>5</sup>

- c. The firm Nimmons and Fellows was established in 1897 and continued until 1910. Best known for large commercial structures, one of the firm's first major commissions of this type was the Sears & Roebuck plant on the West Side of Chicago. One of their most successful works, this work led to the firm's later receiving commissions to design buildings for Sears, Roebuck in several Midwestern cities in the early twentieth century.

Among the other major works by the firm in Chicago are the Bailey Building (south portion, 1898); the Leshner Building (1902), the Stratford Building (1907), the Arthur Dixon Building (1908), and the Railway Terminal Building (1909), as well as buildings for Sears, Roebuck and Company in Seattle, Washington, Philadelphia, Pennsylvania, and Kansas City, Missouri, among other locations. The firm also designed a residence for R.W. Sears residence in Grayslake, Illinois, in 1906,<sup>6</sup> and a residence for Julius Rosenwald in Chicago in 1903.<sup>7</sup>

After 1910, George C. Nimmons practiced as principal of George C. Nimmons & Co. (1911-1917) and Nimmons & Co. (1917-1928). He continued to design for the Sears, Roebuck and Company Mail Order Plant including additions to the Merchandise Building Annexes.

- d. The firm of Nimmons, Carr & Wright, established in 1928, was the successor firm to Nimmons and Fellows, George C. Nimmons & Co., and Nimmons & Co. Nimmons, Carr & Wright was responsible for later construction at the Sears, Roebuck and Company Mail Order Plant, including the Allstate Building (1949). Nimmons, Carr & Wright also designed buildings for Sears, Roebuck and Company at other locations, including the Sears, Roebuck and Company Building at Elliott and Lake Streets in St. Paul (1927), which is still extant.

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<sup>5</sup> Henry F. Withey, and Elsie Rathburn Withey, *Biographical Dictionary of American Architects*, page 206.

<sup>6</sup> Richard W. Sears Residence, Grayslake, Illinois, *Inland Architect and News Record*, Volume 47, Number 6, July, 1906.

<sup>7</sup> H. Allen Brooks, *The Prairie School: Frank Lloyd Wright and His Midwest Contemporaries* (New York, New York: W.W. Norton & Company, Inc., 1976), pages 55-56.

George Wallace Carr was born in 1879 in Milwaukee, Wisconsin. He studied design and engineering at the Art Institute of Chicago and the Armour Institute of Technology. After three years of travel and study abroad, Carr joined the firm of Pond & Pond in 1899. In 1914, Carr became associated with the firm of George C. Nimmons & Co., later Nimmons, Carr & Wright. Carr retired from the firm in 1949. He resided in Highland Park, Illinois, and died in 1958.<sup>8</sup>

Clark Chittenden Wright, AIA was born on July 3, 1880, in Libertyville, Illinois, and educated at Beloit College in Wisconsin. Like George Carr, he studied architecture and engineering at the Art Institute of Chicago and the Armour Institute of Technology in Chicago. In 1915, Wright began his career as a draftsman in the office of George C. Nimmons in Chicago. By 1933, he became a partner in the firm of Nimmons, Carr & Wright. Wright was in charge of structural work on many large buildings including the Sears, Roebuck and Company buildings in Chicago, Philadelphia, and other cities; the Allstate Building at the Sears Mail Order Plant in Chicago; the Chicago Beach Hotel in Chicago; and the Portland Cement Company Research Laboratories in Skokie, Illinois.<sup>9</sup> Wright died on October 12, 1948.

After Nimmons' death in 1947, the firm continued as Carr and Wright, Inc., Architects-Engineers.

- e. Dunlap & Esgar, Inc. The firm was responsible for design of parking garages at the Mail Order Plant during the 1960s.

R. (Robert) Rea Esgar was born on August 24, 1905, in Bozeman, Montana. He was educated at Gallatin Co. High School in Bozeman, and attended Graceland College in Lamoni, Iowa, for one year. Esgar received a B.S. in Architecture from Montana State College at Bozeman in 1927, and a M. Arch. degree from Harvard University in 1930. After working as a draftsman for the firm of Fred E. Wilson in Bozeman during college, he worked for Coolidge, Shepley, Bulfinch & Abbott in Boston from 1929-1940 as a draftsman, and from 1944-1946 as an architect. Esgar also worked as architect and chief architect for Chas. T. Main, Inc., in Boston, from 1940-1944. Beginning in 1946, he was a principal with Nimmons, Carr & Wright (Carr & Wright) in Chicago. During that time, Carr & Wright had offices at 333 North Michigan Avenue.

Projects with which Esgar was involved while with Coolidge, Shepley, Bulfinch & Abbott included Logan International Airport in

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<sup>8</sup> Obituary of George Wallace Carr, *The Chicago Tribune*, March 26, 1958.

<sup>9</sup> Henry F. Withey and Elsie Rathburn Withey, *Biographical Dictionary of American Architects*, page 672.

Boston; the Plant Pathology Building at the Rockefeller Institute for Medical Research at Princeton, New Jersey, New York Hospital and Cornell Medical Center in New York City; Lowell House, Elliot House, the Chapel, and various buildings at Harvard University in Cambridge, Massachusetts; and the George Robert White Memorial Building for Massachusetts General Hospital in Boston. While working at Chas. T. Main, Inc., during World War II, he served as Chief Architect for the Duck River Plant for the Chemical Warfare Service, constructed in Columbia, Tennessee; 30 residences at the Holston Ordnance Works at Kingsport, Tennessee; and various buildings at Camp McCain, Grenada, Mississippi. Esgar died on December 12, 1966.

Leonard Eugene Dunlap was born on April 15, 1893, in Savoy, Illinois. He was educated at Urbana High School, and graduated from the University of Illinois at Champaign in 1917. Dunlap worked as a draftsman in Chicago for the Illinois Central Railroad from 1917 to 1919; for the Sinclair Oil Company Engineering Department in 1919; and for George C. Nimmons & Co. (Nimmons & Co.) from 1919 to 1921. From 1921 to 1927, he was in charge of the drafting department for the Kalman Steel Company, Distribution Engineering Department, in Chicago. In 1927, he rejoined the firm of Nimmons & Co. (Nimmons, Carr & Wright), where he listed his position as "in responsible charge of work." Dunlap remained associated with the firm after 1947, when it was reorganized as Carr and Wright, Inc., Architects-Engineers. Dunlap died in 1976.

Although local archives did not provide any definite evidence that Dunlap and Esgar was a successor firm to Nimmons, Carr & Wright, and Carr and Wright, Inc., it is likely that the connection existed because both Dunlap and Esgar held positions of responsibility with that firm by the late 1940s. It is of interest that from 1905, with the design of the original Mail Order Plant by Nimmons and Fellows, through the 1960s, with the design of several parking garages at the Mail Order Plant by Dunlap and Esgar, Sears, Roebuck and Company appears to have employed a single architectural firm and its successors.

### 3. The Engineers

#### a. Adams and Schwab (Martin C. Schwab)

Consulting engineering services for the Mail Order Plant were provided by the firm of Adams and Schwab of Baltimore, with the work continued by Martin C. Schwab, principal of the firm, after he moved to Chicago in 1905. Adams and Schwab provided the design for the elaborate conveyance systems of the Merchandise Building, and mechanical systems for the Power House and other buildings at the Mail Order Plant.

**Martin Constan Schwab** was born in Baltimore, Maryland, in 1880, and attended the local Polytechnic Institute. He graduated in engineering from Johns Hopkins University in 1896. In 1904, Schwab married Besse Wiesel and the couple had two daughters. In addition to his engineering work, Schwab was also nationally known as a collector of Chinese, Egyptian, and Persian art objects.

As a consulting engineer, Schwab assisted in the electrification of the Baltimore and Ohio Railroad in 1896. He was later appointed consulting engineer for the Maryland Electric Co., and was active in the rebuilding of Baltimore after the Fire of 1904. He served as consulting engineer for the Soldier's Home in Washington, D.C., and for buildings in Washington, Philadelphia, and New York, while a principal in the firm of Adams and Schwab.

In 1905, Schwab moved to Chicago and established the firm of Martin C. Schwab. He served as consulting engineer for the Sears, Roebuck and Company Mail Order Plant, where his work included the design of extensive conveyance systems for the Merchandise Building. To Schwab on this project are attributed the development of the first high speed and horizontal assembly lines, and the first use of air conditioning in an administration building with sealed windows.<sup>10</sup> He also participated in the design of the WLS Broadcasting Station at the Merchandise Building.

Schwab served as consulting engineer for the electrification of drainage canals in Chicago and for the Illinois State Board of Administration (1913). He was involved in construction of the Bell Building, Mallers Building, Michigan Square Building, Adler Planetarium, Harris Trust & Savings Building, Corn Exchange National Bank, Hotel Sherman, Morrison Hotel, Mandel Brothers Building, Rothschild's Store, Lytton Stores, 30 North Michigan Avenue, 333 North Michigan Avenue, and various Yellow Cab Bus properties in Chicago; the General American Tank Car Corporation in East Chicago, Indiana; Union Station in Kansas City, Missouri; and the Baumberger Department Store in Newark, New Jersey. He also served as consulting engineer for the Julia Lathrop Government Housing Project in Chicago. Schwab held patents for various devices developed for building construction. He was involved with construction of buildings in 150 cities in 43 states, and was active in various charitable organizations and clubs. Schwab died on January 2, 1947.

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<sup>10</sup> Obituary of Martin C. Schwab, *Baltimore Sun*, January 4, 1947. This notice included a general description of Schwab's work; however, references to the names and locations of specific projects mentioned were not provided.

b. E.C. and R.N. Shankland

The firm of E.C. and R.M. Shankland provided civil engineering services for the buildings of the original Mail Order Plant.

Edward Clapp Shankland was born on August 2, 1854, in Pittsburgh, Pennsylvania. He was educated at public schools in Dubuque, Iowa, and studied civil engineering at Rensselaer Polytechnic Institute, Troy, New York, from which he graduated in 1878. (Edward Shankland received an honorary M.A. from Cornell College at Mt. Vernon, Iowa, in 1904.) In 1881, Edward Shankland married Harriet Graham; the couple had two children. From 1878 until 1883, Edward Shankland worked for the United States government on improvements to the Missouri and Mississippi Rivers. From 1883 until 1889, he was engaged in structural work on bridges at Canton, Ohio. From 1889, he worked primarily in the design of steel structural systems for buildings, serving as an engineer for the firm of Burnham & Root (D.H. Burnham & Co.) until 1894. During the years 1891 through 1893, Edward Shankland was engineer of construction and chief engineer of the works for the World's Columbian Exposition. In 1898, he founded the firm of E.C. and R.M. Shankland, Civil Engineers, with his brother, as discussed below. The firm specialized in designing steel structural systems for buildings. In 1896, Edward Shankland received the Telford gold medal and Telford premium from the Institute of Civil Engineers for his paper on steel skeleton construction in Chicago.

Ralph Martin Shankland was born on September 8, 1863, in Dubuque, Iowa. He studied civil engineering at the University of Michigan, graduating in 1888. In 1890, Ralph Shankland moved to Chicago, where he was employed in the engineering department of Burnham & Root (D.H. Burnham & Co.) until September, 1898. In 1894, Ralph Shankland married Justine M. McNeil, and the couple had one son. Beginning in 1898, he practiced civil engineering with his brother in the firm, E.C. and R.M. Shankland.

The firm of E.C. and R.M. Shankland was very well known for its work in Chicago and elsewhere. In addition to the Sears, Roebuck and Company Mail Order Plant, the firm served as structural engineers for the Coliseum Building, LaSalle Street Station, an addition to the Fisher Building, and the Corn Exchange National Bank in Chicago, on which Martin Schwab had also worked; the Tennessee Trust Building in Memphis; the Union Bank Building in Winnipeg, Manitoba; and a palace for the Crown Prince of Japan in Tokyo.

4. The Builders

- a. Thompson Starrett Company. The Sears, Roebuck and Company Mail Order Plant was constructed by the Thompson Starrett Company of New York. Theodore Starrett (1864 - 1917), founder of the company, lived in Prospect Plain, New York. He came from a literary family; his mother was editor of a woman's magazine. However, with his brothers Paul and William, Theodore Starrett was always involved in building construction. In his youth, he worked in the offices of Burnham and Root, as had George C. Nimmons and Edward and Ralph Shankland. His work as a contractor included the erection of many large structures in Chicago, New York, and Toronto.<sup>11</sup>

In addition to the Sears complex, work of the firm in Chicago included the Tribune Tower (1923 and 1925), and the Bismarck Hotel (1926), the Palmolive Building (1929).

5. Original and subsequent owners, occupants, uses:

The Merchandise Building was constructed for and has remained in use by Sears, Roebuck and Company. The building was used for handling and shipping of mail order merchandise from completion of construction in 1905 until closing in 1987.

6. Original Plans and Construction (1905-1910)

In a 1904 letter describing the proposed construction with regard to insurance requirements, Richard Sears described the proposed Mail Order Plant, including the Merchandise Building:

We have procured a piece of property about three miles directly west of our City Hall (Center of city). The property is 537 feet wide and one-half a mile long....in one of the best residence districts of our city....We are planning to erect a building of mill construction, the main part of the building covering an area of about 300 to 400 feet, with a large court in the center, and adjoining each building will be two long two-story buildings....<sup>12</sup>

The requirements for the new plant included a merchandise building where goods could be stored and shipped; an administration building; a printing plant; and various amenities including an outdoor recreation area. Julius Rosenwald personally negotiated with the architects and contractors for the

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<sup>11</sup> Obituary of Theodore Starrett. *The Western Architect*, Volume 26, Number 5, November, 1917.

<sup>12</sup> Letter from Richard Sears to Mr. Jno. A. Freeman, President of the Mutual Insurance Co. in Providence, Rhode Island, November 30(?), 1904.

new plant. He selected Nimmons and Fellows as the architects; the firm had designed his home at 4901 Ellis Avenue in Chicago in 1903, and had also designed a house for Richard Sears in Grayslake, Illinois.

When plans for the new plant were published in trade papers, Louis J. Horowitz of the Thompson-Starrett Company of New York traveled to Chicago to offer the firm's services. Horowitz offered a bid of \$250,000 for construction. He offered to sign a contract for a construction fee of only \$1; if Rosenwald was not satisfied with completed work, Sears, Roebuck and Company would only need to pay the cost of materials plus \$1. An agreement was finally drawn up for a fee of \$40,000, and the contract was signed on December 22, 1904.<sup>13</sup>

Ground was broken on January 24, 1905. Approximately 7,000 men worked on construction of the new plant. Each day 60 freight car loads of building materials were used. The contractor later reported that 23,000,000 bricks were used in construction. Several of the building were of mill construction. The order for yellow pine timber placed on January 11, 1905, was reportedly the largest in history of the trade, requiring 13,545,576 board feet of lumber.<sup>14</sup> The terra cotta for the buildings was fabricated by the Northwestern Terra Cotta Co., which had offices at 1000 Clybourn Avenue in Chicago in 1905.<sup>15</sup>

The Merchandise Building was completed by October, 1905. The entire plant was turned over to Sears, Roebuck on January 15, 1906, and on January 22, 1906, the company moved its operations to the new facility. The move from downtown Chicago to the new plant was made in approximately 200 wagons over a period of about one and one-half weeks. Merchandise was moved across the city, even as shipping continued uninterrupted at the offices. When the wagons arrived at the new plant, the adjacent streets were unpaved and few sidewalks had been constructed, but the Merchandise Building was ready for operations.<sup>16</sup>

When construction was completed, Rosenwald issued three checks, the first for the agreed sum of \$40,000, an additional fee of \$210,000 to cover actual costs, and a bonus of \$50,000 for the excellence of the work. The cost of

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<sup>13</sup> M.R. Werner, *Julius Rosenwald: The Life of a Practical Humanitarian* (New York and London: Harper & Brothers Publishers, 1939), page 70.

<sup>14</sup> Theodore Starrett, "The Making of a Great Mercantile Plant," *The Architectural Record*, Volume XIX, Number 4, April, 1906, page 272.

<sup>15</sup> Shop drawings in National Building Museum for terra cotta for "The Sears Warehouse, Chicago," by the Northwestern Terra Cotta Company of Chicago, include drawings of units for sills, lintels, copings, cornices, the Tower balcony, anchorage details, and a key plan and elevations.

<sup>16</sup> Letter from R.P. Moffott to Julius Rosenwald, July 19, 1918.

construction was \$4,282,000; including equipment, the cost of construction of the new plant was \$5,600,000.<sup>17</sup>

In addition to the Merchandise Building and its Annexes, the Administration Building, the Printing and Advertising Building, the Power House, and the Paint Factory were completed in the 1905-1906 building program. The adjacent park was developed soon after the buildings.

The Merchandise Building was one of the first buildings to be put in use at the new Mail Order Plant. Its nearly three million square feet of floor space, "made it the world's largest business building at the time."<sup>18</sup> The floor area of the main building was 1,232,419 square feet, with each of the two annexes providing an additional 513,183 square feet of space.<sup>19</sup> Approval had had to be obtained from the city to close a street to provide a continuous site, 1,250 feet (381 meters) long by 340 feet (104 meters) wide, for the new Merchandise Building site. The organization of the buildings at the plant permitted direct access for shipping from the Merchandise Building via the adjacent railroad line.

The special requirements of the Merchandise Building in large part governed the design. In an article explaining the process of design for the Mail Order Plant, the architects noted that in order to design the site and buildings for the greatest economy, efficiency, and safety, the buildings were organized into three groups based on three divisions of business: advertising and printing; administration; and merchandise storage, handling, and shipping.<sup>20</sup> Nimmons felt that the distinct processes of work should be organized in separate rooms or separate buildings. The flow of production should follow a direct path, without obstacles. The processes and work pattern of order handling determined the design of the Merchandise Building.

The goals of the design were to provide the best possible natural light, ventilation, and efficiency in handling goods to reduce cost while allowing for future growth. Accommodation had to be made for storage and handling of merchandise, communications between departments within and outside the building, and protection against fire.

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<sup>17</sup> Letter of August 2, 1939, to A.C. Roebuck at Sears from G.C. Nimmons at Nimmons, Carr & Wright. (See also Werner, *Julius Rosenwald: The Life of a Practical Humanitarian*, page 74.)

<sup>18</sup> Alex Groner, *The American Heritage History of American Business and Industry*, (New York, New York: 1972), page 242.

<sup>19</sup> "Notes & Comments: The Sears-Roebuck Building," *Architectural Record*, Volume 18, Number 8, August, 1905, page 167.

<sup>20</sup> [George C.] Nimmons and [William K.] Fellows, "Designing a Great Mercantile Plant," *The Architectural Record*, Volume XIX, Number 6, June, 1906, page 3.

The architects noted that:

The nature of the business is such that everything must be handled through one shipping room or endless complication results. Consequently, from numerous schemes the present scheme developed, giving two general divisions, the Merchandise Building and the Annexes...In the Merchandise Building is placed all of the small merchandise which goes through the shipping room. In the Annexes are housed the large or bulky articles which are shipped separately, or goods such as groceries, which are shipped in original packages.<sup>21</sup>

The large room where packing and shipping of completed orders would occur was a focus of the design.

The great problem about the planning of the Merchandise Building was to adapt a plan best suited for handling goods over this immense area, and at the same time one which would have the best light at the second story, as the second story is a continuous expanse of floor over the entire ground area. This is the shipping room floor where all goods are collected, packed, and shipped; the railroad tracks being elevated, enter the building at this level.<sup>22</sup>

The nature of the soil at the building site made spread foundations and wood piles impractical, and concrete piles could not be driven in the clay soil. It was finally decided to utilize concrete caissons, belled at the bottom, to support the new structures.

The floor construction was of five by eight yellow pine flooring, laid with splines, on 14 foot spans between girders without joists. The top of each floor was covered with saturated roofing felt and maple top flooring. In case of fire, water would drain to the outside wall and to scuppers, or to the stairs and elevator shafts. The windows in the court and skylight were fitted with wire glass and metal frames. All openings in fire walls had double fire doors.

Among the design considerations was the projected future elevation of railroad tracks to do away with grade crossings. For this reason, the receiving room was located at the existing grade, and the second floor shipping room was located 13 feet above existing grade, at the future elevated grade. The railroad depot had two sets of railway switches. Incoming freight arrived at the first floor level on the south side of the

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<sup>21</sup> *Ibid.*, page 3.

<sup>22</sup> *Ibid.*, page 404.

building, and outgoing freight was handled at the second floor level in the large freight depot.

From receiving areas on the first floor, goods were trucked to elevators located in the outside walls of the building, from which they could be transferred to the stock departments. The shelves of these departments were arranged so that goods were received at the outside and delivered toward the court in the shipping area, from which they were transferred to the shipping room at the second floor by spiral conveyors.<sup>23</sup> This permitted incoming and outgoing merchandise to be moved without crossing within the building. The operations of the Merchandise Building are described below.

The completed Merchandise Building, with its gravity chutes, conveyors, and railway system, was a source of pride for Sears, Roebuck and Company and its employees, as well as for the designers. Sears, Roebuck as well as Nimmons and Fellows published numerous articles about the design and operation of the plant, with descriptions such as the following:

Miles of railroad tracks lengthwise through, in and around this building for the receiving, moving and forwarding of merchandise, elevators, mechanical conveyors, endless chains, moving sidewalks, gravity chutes, apparatus and conveyors, pneumatic tubes and every known mechanical appliance for reducing labor, for the working out of economy and dispatch is to be utilized here in our great Works.<sup>24</sup>

#### 7. Alterations and Additions

The first additions to the Merchandise Building were made soon after completion of the original structure. In 1910, the fourth through ninth floors were added to Annex A, Sections J and K, and Annex B, Sections P and Q, comprising the upper stories of the west ends of each annex. This addition provided more merchandise storage and order handling area.

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<sup>23</sup> The spiral chutes were built by the Otis Elevator Company. A plate on the door of most of the spiral chutes at the site reads, "Gravity Package Conveyor, built by Otis Elevator Company., pat'd. June 10, 1902, May 19, 1903, New York, Chicago."

A plaque on the blower for the pneumatic tube system reads, "Manufactured specially for and installed by Lamson Consolidated Store Service Co., Lowell, Mass., Manufacturers of Pneumatic Tube Apparatus of Every Description." A second plaque on the blower reads, "Order No. 1508, built by the Cornersville Blower Co., Cornersville, Indiana, displacement per revolution, 188 cubic feet."

<sup>24</sup> Boris Emmet and John E. Jeuck, *Catalogues and Counters: A History of Sears, Roebuck and Company* (Chicago: The University of Chicago Press, 1950), pages 132-133. The authors cite the 1905 Sears, Roebuck and Company catalogue.

In 1912, the two-story Box Factory was constructed at the west end of the Merchandise Building, adjacent to Annex B. This new area of the Merchandise Building permitted Sears, Roebuck and Company to manufacture its own boxes for use in shipping. The Grocery Building, consisting of a basement through sixth floor at Sections 11 and 12 of the Merchandise Building, was also constructed in 1912. Sears, Roebuck and Company had entered into mail order sales of groceries including grains, coffee, and other foodstuffs. The Grocery Department provided space for the special handling required for these goods, as well as cold storage facilities.

Between 1913 and 1916, another addition to the Merchandise Building Annexes was completed. This consisted of fourth through ninth floors at Sections R and S, at the west end of Annex B. Finally, in 1918, fourth through ninth floors were added at Annex A, Sections L, M, N, and O. These areas provided more merchandise storage space, and more room for handling and filling of orders.

Later alterations to the Merchandise Building and its Annexes consisted primarily of interior alterations by creation of offices through partition walls, and creation of finished space for the retail store at the northeast corner of the building. Various changes were made to the Shipping Court to accommodate variations in shipping and handling procedures.

Minor exterior changes were made to the loading docks and adjacent entrances. In 1959, granite cladding was added at the lower floors on the east elevation and northeast corner, and the main (east) entrance was modified to its present appearance.

## B. History of Operations

### 1. 1905-1910

A "schedule system" for handling orders was developed by operations superintendent Otto C. Doering and his associates. Doering was extremely interested in improving the efficiency of the company's operations. In fact, during construction of the new plant, Doering had developed a system to assure that enough bricks would be available at any time for the bricklayers. He had coordinated the flow of materials for construction, as well as creating a system that provided a daily progress report.<sup>25</sup>

The schedule system was first tried some time between 1906 and 1908, soon after the company moved into its new buildings. The goal of the system was to make it possible to fill and ship all orders within 24 to 48 hours of receipt. For a single order, shipment would typically occur the same day as the order was received. For a mixed order, shipment would occur the following day.

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<sup>25</sup> Emmett and Jueck, *Catalogs and Counters: A History of Sears, Roebuck and Company*, page 135.

The schedule system was actually a timetable. As each order was received, it was assigned a fifteen minute period of an hour, usually within the 48 hours after receipt of the order, in which it would be shipped. The assigned period was stamped on the order, or on every component ticket of a mixed order. The merchandise required to fill that order was delivered by each department to an assigned bin in the shipping division within the designated 15 minute period. At the end of the assigned 15 minute interval, the order was shipped. If any order was incomplete, the department that had not met deadline was penalized by the express cost plus a penalty, charged against the department's profits. A different colored form was used for each day of the week, so that urgent items could be readily identified. Through filing and shipping, the schedule system consisted of more than 25 steps for each order, as described below.

Although there is no specific evidence that Doering or others at Sears had direct contact with Frederick W. Taylor, the "Father of Scientific Management," the schedule system suggests a familiarity with the methods of the emerging scientific management movement.<sup>26</sup> In addition to the schedule system, Doering set up a methods department for continued improvement of the company operations.

The first mail delivery reached the Mail Order Plant at 6 a.m. The mail was weighed, and based on the amount of mail received, the early work shift prepared estimates for department heads of the approximate anticipated workload for the day. Typically one pound of mail could be expected to contain 40 orders.<sup>27</sup> Including the early delivery, mail was delivered to the plant four times daily.

The majority of the work force arrived at 8 a.m. Sears, Roebuck and Company invented the first automatic letter openers used in the industry, and letters were opened at a rate of 10 to 12,000 per hour.<sup>28</sup> Orders were separated from other correspondence, and then read and checked in the Auditing Department.

Orders were then delivered to the Cash Crediting Division, where payments were checked before the orders were accepted for processing. The amount of money received was recorded on the face of the original order and a record made. The orders were then passed to the Card Index Department where a second record was made as a permanent record of the transaction, indicating the invoice number, location by state, and amount received. The

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<sup>26</sup> James Worthy, *Shaping an American Institute: Robert E. Wood and Sears, Roebuck*, page 30.

<sup>27</sup> Emmett and Jueck, *Catalogs and Counters: A History of Sears, Roebuck and Company*, page 135.

<sup>28</sup> Sears had invented the first automatic letter openers used in industry. According to Werner, these machines could open 27,000 letters per hour. (Werner, *Julius Rosenwald: The Life of a Practical Humanitarian*, page 73.)

orders were then sent to the Entry Department. By 1908, \$350,000 in orders was received each day.<sup>29</sup>

In addition to the departments responsible for entering and processing orders, the Mail Order Plant had a General Correspondence Department which was responsible for answering letters from customers. Its annex, the Adjustment Inspection Department, was responsible for determining responses and refunds to customer complaints. In the Stenographic Department, 150 to 200 women transcribed letters dictated by correspondents in person, or dictated onto graphophone cylinders. This worked produced 10,000 letters per day including carbon copies.<sup>30</sup>

The accounting division of the Cashier's Department was responsible for counting money received. Each day, 25,000 post office money orders, 3,300 express money orders, 5,000 checks, and thousands of dollars in currency were received. This department also handled payroll for employees, and the accounts of the Employees' (sic) Savings Bank.<sup>31</sup>

In the Entry Division, more than 60,000 orders were prepared each day, with 300 typewriters used to record orders.<sup>32</sup> Each order was checked for proper catalogue numbers and description of goods, and to see that the correct payment was enclosed. Initially, the original orders were saved. Later, the original copies were sent back to customers so that they could check the orders against the goods received.

In the Routing Department, the shortest, fastest, and cheapest route was selected for shipping each order. Labels were prepared and other clerical work for shipping was completed. A ticket for each item in the order was then made out and sent to the appropriate merchandise department via

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<sup>29</sup> Sears, Roebuck and Company Archives, stereopticon slide, "Mail Opening and Mail Auditing Departments," circa 1908. Around 1908, Sears, Roebuck and Company produced a set of 50 stereo views which were made available to customers for 50 cents a set. These stereopticon slides featured overall views of the Mail Order Plant and employees at work. Views included the Administration Building and gardens, Mr. Sears at his desk, receptionists at the Long Distance Telephone Switchboard, the Automatic Telephone Switchboard in basement of Administration Building, a Pneumatic Tube Station, the main dining room in the basement of Administration Building.

<sup>30</sup> Sears, Roebuck and Company Archives, stereopticon slide, "Stenographic Department," circa 1908.

<sup>31</sup> Sears, Roebuck and Company Archives, stereopticon slide, "Counting the Money Received Daily," circa 1908.

<sup>32</sup> Sears, Roebuck and Company Archives, stereopticon slide, "Making a Record of the Customer's Order," circa 1908.

pneumatic tube. Each of the dozens of tubes could deliver 20 carriers per minute.<sup>33</sup>

The pneumatic tubes were a source of fascination for visitors, and provided the focus for various promotional documents:

Probably the most valuable time saver employed by us to facilitate the transaction of business in the new plant is very elaborate system of pneumatic tubes used for sending written communications, orders, etc. between departments throughout the several buildings....the station in the Administration Building is said to be the largest of its kind in the world. More than fifteen miles of tubing were used in the installation of this system...Letters and orders received from our customers are opened and read in the Administration Building and from this central building are routed through this tube station to the proper merchandise or clerical departments for handling, and as this service is operated by compressed air it is almost instantaneous. These tubes carry what they call a cartridge, which is a hollow cylinder about four inches in diameter and about twelve inches long. Letters, orders or papers are inserted in this cartridge and the cartridge in turn dropped into the tube and the great air pressure forces this carrier at a very high rate of speed to its destination...It is not an uncommon thing for the boys in charge of this room to handle more than twenty-seven thousand cartridges in the course of a day's work, and in the entire tube system more than seventy thousand cartridges or carriers are handled in a single day.<sup>34</sup>

The orders were received in the various merchandise departments. Merchandise was stored on numbered shelves according to the catalogue numbers. The correct items for each order were selected and placed in baskets. The baskets were placed in gravity conveyors and conveyor belts which carried the merchandise to assembly points. The baskets were then dropped through chutes which carried them to the shipping rooms. The chutes were constructed of steel, and were about eight feet in diameter. Each chute contained three spiral planes, with one opening to each chute at each story of the building. Baskets containing goods were placed in one of three openings, which corresponded to freight, express, or mail shipment.

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<sup>33</sup> Sears, Roebuck and Company Archives, stereopticon slide, "The Routing Department," circa 1908.

<sup>34</sup> Sears, Roebuck and Company Archives, stereopticon slide, "Pneumatic Tube Station, Sears, Roebuck & Co., Chicago, Ill.," circa 1908.

A contemporary review noted, "This process is very rapid, and goods are disposed of about as fast as if they were through out of the window."<sup>35</sup>

At the bottom of the chutes, the baskets slid onto horizontal conveyors which ran around four sides of large shipping court. Each plane of the chute connected at the bottom with a corresponding traveling conveyor for mail, express, or freight shipping departments. The conveyors transported the goods to the proper shipping room. The mail shipping area was 12,000 square feet in floor area, and the express and freight shipping areas were each 25,000 square feet.

Smaller goods, including all items less than 4 feet x 5 feet in size, were sent by the spiral chutes. These goods were stored in the merchandise departments located above the second floor, while larger and heavier goods were stored on or below the second floor level. Heavier goods stored below the second story were carried up into the shipping area by inclined traveling conveyors. In addition, each merchandise department had access to at least one large freight elevators.

The baskets containing goods were received from the conveyors onto a large receiving table in each shipping room. The baskets were then taken to rows of shelves divided into sections, with a space reserved for each order. Empty boxes were brought in to the packing area overhead at the center of court, by traveling conveyor. As soon as the last article required to fill the order reached the basket, the goods were checked, boxed, and marked ready for shipment. The packing process was organized so that shipments were completed near the head of the large freight depot.

Conveyors carried the packed orders to the loading platforms. Heavier items were taken to freight and express areas, and lighter items were taken to desks where pre-canceled stamps were attached. Heavy goods too large to be boxed were assembled in the freight pits and moved into railroad cars. Very heavy items were shipped directly from the factory. Orders for such items were forwarded to the factory for handling and shipping on a similar schedule system.

## 2. 1910-1930

Over the first several decades of operations at the Mail Order Plant, the schedule system did not change very much. Some refinement of the system as implemented to address the increasing volume of business. An article written in 1919 followed the course of an order received at the Mail Order Plant, as described below:

When a letter arrives in the Administration Building, it is opened, together with others, by grinding its edge on a machine. Its contents are divided, the remittance going one

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<sup>35</sup> Nimmons and Fellows, "Designing a Great Mercantile Plant," page 406.

way after auditing and the order going to a clerk, who enters a record of it and then makes out a separate ticket for each department handling the goods called for by the order. These tickets, to which are attached the shipping labels or freight or express receipts, are then sent from the Administration Building through pneumatic tubes over to the proper departments in the Merchandise Building,....<sup>36</sup>

By 1918, 1,500 to 3,000 pounds of mail, i.e., 90,000 to 180,000 letters, were received each day.<sup>37</sup>

The mail was sorted in sorting racks. Regular mail was opened by a machine, and stamped with the time received at a rate of 450 letters per minute. At first, letters were opened by hand. Then, an automatic letter opener with a two-foot disc faced with sandpaper was used by grind letters open in bunches of 40 to 50. This was found to damage the letters, so a new machine was developed to open one letter at a time.

In the Mail Opening Division, 50 girls aged 16 or 17 removed enclosures and pinned them to the envelopes. Orders were separated from correspondence, and orders containing currency were separated from the rest.

Orders were collected from the Mail Opening Division and delivered to the Cash Entry Division, where they were sorted according to the type of payment enclosed. The 55 cash entry clerks worked at stations along two conveyor belts. Each clerk received a bundle of 25 orders and 25 wrappers. After the contents were checked, the amount of credit was marked in blue pencil on the face of the order. Orders and remittances were then placed on the belt to be taken to the cashier's office and auditing department, to balance the money received against the credit noted. Orders were then sent to other departments for handling and shipping. Sears, Roebuck and Company accepted personal checks without certification, and realized only small losses.

Letters were collected from the mail openers and taken to the mail reading division. The various departments were numbered, and the readers designated to which department letters were to be sent for answering. A colored schedule sheet was pinned to the front of each letter indicating the department to which it was to be sent. Letters were dispatched from the mail reading division every 30 minutes. A different color sheet was used for

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<sup>36</sup> George C. Nimmons, "Modern Industrial Plants: Part VII - Sears, Roebuck & Co.'s Plant, Chicago," *The Architectural Record*, June 1919, page 512.

<sup>37</sup> "A Visit to Sears, Roebuck & Co.," (Chicago, Illinois: Sears, Roebuck and Company, 1918).

each day of week. The correspondents were allowed about 6-3/4 hours after opening of the letter to prepare an answer.<sup>38</sup>

Goods were received on the south side of the Merchandise Building, at the first and second floors, and sorted according to merchandise type. The merchandise was then moved horizontally to the different sections of the warehouse, and transferred to elevator to the appropriate merchandise departments on the floors above. In the Merchandise Building:

...the goods called for are selected, checked and wrapped, with the tickets to identify them attached. Each ticket calling for goods always has marked on it the particular time at which the articles called for are to arrive down in the shipping room on the second floor...the article or package of goods is placed on a traveling belt conveyor, which takes the articles along to a great steel spiral chute, about eight feet in diameter, that extends on down to the sorting division on the third floor.

The process described above addresses only one spiral chute; by 1919 there were actually seven at different locations within the Merchandise Building. Five of the six chutes had three internal planes, so that three separate streams of goods could travel through the chutes at one time.

Items that were too large to be sent through the spiral chutes were stored in the Merchandise Building annexes, taken down on trucks by elevators, and loaded into cars in the freight depot. After the smaller goods were placed in the spiral chute:

The goods come down this chute and slide out on another belt conveyor, which carries them along to the sorting division. Here are many clerks, and traveling belt conveyors apparently moving in every direction. When the package which we have been following arrives before a certain clerk, he takes it off the incoming belt and places it on the belt which is headed in the direction of the particular section of the shipping department where our package is to be packed. When it arrives at this section it is placed in a basket on a rack, where it waits till all the other articles ordered by our customer have arrived. When the last article has arrived in the basket to complete the order, the basket is taken out of the rack and placed on a declining gravity slide on which it slides down from this balcony elevation to the packer.

The packer takes the goods out of the basket, puts them on the counter in front of him, and immediately decides what

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<sup>38</sup> Description of Mail Order Procedure, by R.J. Blum to Mr. Rosenfels, July 10, 1918.

kind and size of a box he will pack them in. He calls out a number indicating this, and someone up above hands him down the box of his choice. After the goods are boxed and labeled they are placed on another belt, which takes them away for shipment. The package may be shipped by freight, mail or express; if by parcel post the package is weighed, stamped and conveyed to a bin where other packages going to the same locality are accumulated to be sent over the same railroad or route.<sup>39</sup>

After completion of the two-story Box Factory adjacent to the west of Annex B in 1912, boxes for shipping could be manufactured on-site at the Merchandise Building. In the same year, completion of the six-story Grocery Building at the west end of Annex B provided seven acres of floor space with special heating, cooling, and ventilation systems, and areas for storage of foods at different temperatures. In the Grocery Stock Room, packaging of cereals, sugar, and coffees was accomplished, "untouched by human hands." By the late 1910s, 6,000 carloads of groceries were shipped each year. Sears, Roebuck and Company handled the Montclair, Rivera, and Kingston brands of groceries.

By 1918, all shipments were made one to two hours after receipt in the Shipping Department from the Stockroom. The Shipping Department was 200,000 square feet in size, and 1,500 to 2,000 employees worked there. In 1917, the department reportedly sent 22,000,000 orders.<sup>40</sup>

A post office was located at the north side of the Merchandise Building, (in Section I, on the first floor). The post office business done there was considered the equivalent of that of a city of 150,000 persons. The express companies also had representatives at the site, with offices on the first floor of the Merchandise Building (Sections A and E).

Beginning in 1912, Sears, Roebuck also used warehouses at other locations for storage. By 1918, 15 warehouses were in use, providing a storage area of 1,500,000 square feet.<sup>41</sup>

All outgoing movement of goods took place from the center of the buildings outward, to avoid interference with incoming supplies. All of the railroad tracks on which incoming goods arrived were located on the outside of the building. By 1918, motor-trucks were primarily used for hauling of goods instead of horse-drawn wagons. Outgoing orders were loaded directly into freight cars. Express orders were shipped by truck. Wagon and truck

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<sup>39</sup> George C. Nimmons, "Modern Industrial Plants: Part VII - Sears, Roebuck & Co.'s Plant, Chicago," page 512.

<sup>40</sup> Description of Mail Order Procedure, by R.J. Blum, July 10, 1918.

<sup>41</sup> Letter from R.P. Moffott to Julius Mr. Rosenwald, July 19, 1918.

loading areas were located on the east, north, and west sides of the building.

3. 1930-1987

Receiving and shipping of goods was by railroad until the 1930s, when rail was supplanted by truck for both incoming and outgoing goods. As in previous years, goods were transported by hydraulic elevator to the various Merchandise Storage areas on the third through ninth floors. Storage for heavier and larger goods was provided on the first and second floors. Additional storage was provided in the basement. Goods were placed on shelves according to catalogue number. As in the original order handling system, orders were received via pneumatic tube from the Administration Building to the two pneumatic tube stations in the Merchandise Building basement. Orders were then sent by tube to the merchandise departments above. Orders were filled according to the method of shipment (mail, express, or freight), and packed in the shipping court and adjacent areas. Completed orders were shipped by mail from the post office docks on the first floor, Section I; by railroad express service from the first floor, Section A; or by freight from the train shed between Annex A and Annex B. The post office service continued until the 1970s, after which orders were instead shipped by United Parcel Service (UPS).

The process for order handling and shipping did not change very much over the years. A letter prepared by an employee in 1938 documented changes that had occurred, reflecting a system very similar to that implemented decades earlier. In the late 1930s, the mail was received each hour from 5:30 a.m. to 2:30 p.m. After preliminary sorting, the mail containing orders was sent through a mail operating machine. Mail containing currency was distributed to cash entry clerks in batches of 25 orders. Other orders were distributed in one pound lots. The clerks pinned a cash wrapper and shipping label to each order containing remittance. Other orders and correspondence were redirected for special handling. Orders containing remittance other than currency were picked up at intervals by messengers and delivered to cash register operators. Orders containing currency were accumulated by cash entry clerks and released to the cash registers in packets of 25. After authentication, the packets were released to "Department 173" for verification.<sup>42</sup>

In later years, the Grocery Building and the Box Factory at the west end of Annex A were used for shipping of orders. Truck docks were added to the north side of Annex B, as well as the Grocery Building, Box Factory, and Annex A. From the mid-1960s, orders were transferred to the Catalogue Operations Building, located one block west of the Merchandise Building, for shipment by truck.

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<sup>42</sup> Letter from B.W. Thomas to Mr. Lusby on Mail Order Procedures, updating C.W. Palmer letter, re: Department 146, February 28, 1938.

When the Merchandise Building closed in 1987, the system in use dated from the mid-1960s. System components such as the spiral chutes and pneumatic tubes were part of the original installation circa 1906 to 1917. Other components such as conveyor belts in the merchandise storage areas were installed after original construction, and remained in use with some alterations. Although shipping methods changed over the years, the organization of the system for filling orders remained similar to that originally used. In 1987, orders were designated and shipped according to three methods: Single, Mixed, and Control Delivery Service (CDS) orders. Single and Mixed orders were shipped directly to the customers by parcel post, and later by UPS. The CDS orders were shipped to retail and catalogue stores for pickup by customers. Beginning in the mid-1960s, all orders were moved by conveyor from the Merchandise Building to the Catalogue Operations Building. At the Catalogue Operations Building, orders were loaded onto trucks for shipment.

At the time of the Plant closing in 1987, single orders, mixed orders, and CDS orders were processed as follows. For single orders, the order picker located the item on shelves where it was stored according to catalogue number. (A ticket for each order was received via pneumatic tube from either the north or south tube station in the basement of the Merchandise Building.) The single item was packaged and placed on a conveyor leading to a spiral chute, single order vane. The single item was received from the spiral chute and traveled on the conveyor to a processing station. The single item order was received in Section I on the first floor for labeling and weighing. It was then forwarded by conveyor to Catalogue Operations Building for shipment.

For mixed orders, the order picker in a given merchandise department located the items held in that department on shelves where items were arranged by catalogue order. (One ticket for each item was previously received in the merchandise departments via pneumatic tube from either the north or south tube station.) Circa 1987, orders were required to be filled and sent by spiral chute and conveyor to the package station within 20 minutes, so that all order items of a mixed order could be packaged together. The mixed order items were then placed on conveyor to a spiral chute, mixed order vane. The mixed order items were received from the spiral chute and sent by conveyor to a sorting station. Mixed order items were received in the sorting station, with the size of the order determining whether the order was packaged in Section A (normal orders) or Section B (large orders). Mixed orders were transferred to one of six "crow's nest" substation conveyors. At each "crow's nest," personnel sorted the orders to one of eight package stations. All mixed order items for a given customer were packaged together and placed on a conveyor. Larger mixed orders were handled separately by a similar system, traveling first to the sorting level, sorted to bins according to designated time of packaging, and finally packaged together and placed on conveyor. All completed and packaged mixed orders were then sent by conveyor to the Catalogue Operations Building for shipment.

For CDS orders, the order picker located the item or items on shelves, where items were organized by catalogue number. (One ticket for each item was previously received via pneumatic tube from either the north or south tube station.) Order items were placed on a conveyor leading to a spiral chute, where they were placed in the CDS order vane. CDS order items received from spiral chute traveled on a conveyor to a sorting station, passing by a supervisor who controlled distribution to either side of the sorting station. CDS orders were then sorted by store region to one of eight conveyors carrying merchandise to each sorting substation. Substation personnel sorted the merchandise to bins; one or more bins were provided for each store. CDS merchandise was retrieved from bins and placed in boxes on a conveyor which carried the completed orders to the Catalogue Operations Building for shipment. Order items for each customer were later sorted at the stores.

This system of operations remained in use until the Merchandise Building closed in 1987. The decline in catalogue sales in comparison to retail sales, the opening of other Sears facilities across the country by mid-century, and the relocation of the company's headquarters to downtown Chicago all contributed to a lessening of importance of the Mail Order Plant. In 1987, the Merchandise Building closed, and the mail order portion of the business at the Chicago Plant ended.

## PART II: ARCHITECTURAL INFORMATION

### A. General Statement:

#### 1. Architectural character

The Merchandise Building is an excellent example of the architectural style developed by Nimmons and Fellows for their practice in industrial buildings. The red brick walls, simple trim, and regular and extensive fenestration all exemplify the type of solution which the firm developed to meet the needs of the workers while responding to an architectural aesthetic.

In an article written in 1919 explaining the design, Nimmons and Fellows commented:

Modern industrial buildings are particularly fitting subjects for treatment architecturally. The varied requirements and function of these structures are such as can be expressed in designs that are both attractive and beautiful...many designers of these buildings are beginning to indicate a preference for a certain kind of treatment...an honest expression of the construction or functions of the building, because the utilitarian nature of industrial buildings, as a rule, prevents the expenditure of much money on elaborate features of a purely ornate character....In fact, what a proper architectural treatment is for a factory building would clearly show that it is simply making beautiful and attractive what has to be there anyhow for utilitarian purposes.<sup>43</sup>

The architects also noted that the goal of this design was to obtain the greatest efficiency while maintaining economy of space and cost. They noted that "the composition was made subservient to structural requirements and such structural features developed to provide a pleasing composition."<sup>44</sup>

#### 2. Condition of fabric

At this writing, the Merchandise Building is scheduled for demolition. In general, the Merchandise Building is in fair to good condition. Although the building is scheduled for demolition, it has generally been well maintained. However, portions of the building are only in fair condition, with localized deterioration of exterior masonry, roofing, and interior finishes from water penetration. A localized structural failure of a timber roof beam has

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<sup>43</sup> George C. Nimmons, "Modern Industrial Plants: Part IV - Discussion of the Various Types of Windows for Industrial Buildings," *The Architectural Record*, February 1919, pages 163 and 165.

<sup>44</sup> Nimmons and Fellows, "Designing a Great Mercantile Plant," page 411.

occurred at the ninth floor, Section D, due to rotting of the wood from water penetration. The bridge leading from the west elevation of the Grocery Building to the Property Building (demolished) was removed, and the area of masonry opening to the bridge at the Grocery Building is deteriorated.

**B. Description of Exterior:**

**1. Overall dimensions**

The Merchandise Building is composed of two parts: a nine-story east portion organized around a central court, and two nine-story wings (Annexes A and B) to the west. The six-story Grocery Building (Sections 11 and 12) is located at the west end of Annex B, and the two-story Box Factory is directly south of the west end of the Grocery Building. The overall footprint of the building is an extended U. The overall dimensions of the east portion of the building (Sections A through I) are 450 feet (137 meters) by 312 feet (95 meters), with the central shipping court measuring 230 feet (70 meters) by 81 feet (25 meters). The tower is 50 feet (15 meters) square in plan. Annex A, the south annex, is 706 feet (215 meters) by 115 feet (35 meters) in plan. Annex B, the north annex, is 462 feet (141 meters) by 115 feet (35 meters) in plan. At the west end of Annex B, the Grocery Building is 327 feet (100 meters) by 130 feet (40 meters) in plan, and the Box Factory is 235 feet (72 meters) by 85 feet (26 meters) in plan. The train shed between Annex A and Annex B is 68 feet (20 meters) by 464 feet (141 meters) in plan and contains four tracks. The main facade of the building faces east.

**2. Foundations**

The building is constructed on concrete caissons, belled at the bottom. Some of the caissons reportedly extend 90 feet (27 meters) into the ground. Below grade, the basement walls are constructed of concrete.

**3. Walls (including Tower)**

The exterior walls of the building and Tower are red pressed brick with terra cotta trim. Terra cotta trim at floors three through nine consists of window heads and sills. At some locations, the original terra cotta units have been removed and sheet metal covers installed. Above the eighth and ninth floors are located projecting courses of terra cotta. Continuous brick piers extend from floors three through eight. A terra cotta cap surmounts each brick pier. Brick corbels are located above the third floor windows. The sills at the first and second floors are limestone. A decorative limestone course is located above the second floor on the exterior facades. This trim is similar on the exterior facades of the building and Annexes.

The facades facing the courtyard and train shed are red face brick and common brick, with red terra cotta sills and lintels, and a terra cotta coping.

Some of the sills and lintels are concrete. In both the exterior and courtyard walls, the brickwork has a header course every six courses.

A newer granite base is located along the east facade at the first and second floor levels. This cladding extends around the corner of the building onto the north elevation.

The base of the Tower at the first and second floors is clad with limestone. The shaft of the Tower is organized with three columns of windows between brick piers. At each corner, the wall is brick with a terra cotta course above the second floor and at the first floor sills. There are capitals above the piers at the top of the second story. The top floor of the Tower is decorated with blue and white terra cotta surrounding the three arched openings on each facade. The nine balconies at the observation deck level are clad with a sheet metal surround that is not original. The exterior terra cotta at this level has been painted. The original exterior light fixtures have been removed at this level.

The main entry is located on the east elevation, at the base of the tower. The entry is flanked by two large, smooth limestone columns, and is surmounted by a canopy, all installed in 1959. (The original columns were fluted.) The large limestone bracket above the doors is part of the original entry. Entrance is through a modern glass and aluminum doorway.

There are four secondary public entrances near the east end of the north facade. At the east end of the facade, an aluminum and glass entrance is surmounted by a metal canopy. This entrance led to the bank. The next entrance to the west led to the retail store. The main retail store entrance, which is surmounted by a metal canopy, is flanked by two smaller entrances for exit stairs, each surrounded by terra cotta trim. The entry area of the main retail store entrance has been bricked in. Each of these entrances is flanked by two pilasters and topped by an entablature.

Several employee entrances are also located on the north elevation. The entrance at the west end near the Grocery Building and the entrance near the middle of the north elevation are original, with wood doors and a transom. The entrance at the east end of Annex B has aluminum-framed windows with a brick base. At the base of each fire stairs there are wood doors with a transom above.

Fire escapes are located at regular intervals along all exterior elevations of the building. There are also interior fire stairs between each pair of bays.

There are three sets of loading docks along the north elevation. The easternmost dock is covered by a canopy of ribbed metal, and consists of four rolling doors surmounted by transoms. This deck is original to 1905, and served as Postal Service Shipping. The center dock has non-original doors with transoms above. There is a metal canopy above the loading dock. The west dock is covered by metal awnings. This loading doors at this dock have been modified.

A loading platform is located along the east elevation, south of the Tower. This platform is covered by a ribbed metal canopy. An addition at the east end of the south elevation of building housed the Express Offices.

There is also a loading dock at the Grocery Building, at the west end of Annex B. This dock has four roll-up doors.

At the north facade of the Grocery Building, brick piers continue from the base of the wall to the top of the fifth floor, and are surmounted by terra cotta capitols. Short paired piers are located at the sixth floor level. A brick gable with terra cotta trim extends above each end and the center of the Grocery Building, north elevation. The brickwork and terra cotta trim are similar on the west elevation, and also include terra cotta trim in the bay containing the fire stair and entrance.

The main entrance to the Grocery Building is located at the center of the north facade. There is a secondary entrance to the Grocery Building at the south end of the west elevation. One fire escape is located at the center of the west facade of the Grocery Building.

The Box Factory is located at the west end of the Merchandise Building, south of the Grocery Building and adjacent to the larger building. The Box Factory is also constructed with red brick exterior walls on the west and part of the south facades. The first floor contains loading docks covered by a metal awning on the west elevation and recessed beneath the second floor on the south elevation. The second story wall extends into a gable at the north end. The Box Factory west wall is ornamented with two terra cotta belt courses at the second floor window level, as well as terra cotta copings and sills. This portion of the facade has one-over-one double-hung wood-framed windows.

A metal-clad addition has been constructed at the second story of the Box Factory, above the south loading platform. The remainder of the south elevation consists of a curved wall constructed of clay tiles, with regular paired window openings between projecting clay tile piers. This portion of the Box Factory facade is covered by a metal canopy. Directly east of the Box Factory, a metal canopy covers the first floor of the south facade of the Grocery Building.

On the south side of Annex A, a steel railroad trestle extends along the length of the building at the second floor level. There are exits at the fire stairs at regular intervals along this facade. A small one-story red brick addition was constructed at the west end of Annex A.

A wood-framed walkway extends between the north facade of Annex A and the south side of the Box Factory at the second story level. A metal-clad walkway connected the west end of the north facade of Annex A with the Catalogue Operations Building (demolished). A third walkway that linked that west end of the Grocery Building with the Property Building has been demolished. Finally, a metal-clad walkway extends from the east end of the

south facade of Annex A to the Paint Factory (Wall Paper Mill) at the second story level.

4. **Structural system, framing**

With the exception of the Tower, the Merchandise Building is principally mill construction consisting of timber framing. Mill construction was used for the east portion of the building, Sections A through I; Annex A, Sections J, K, L, and M; Annex A, Sections N and O (with the exception of the top two floors which are steel and tile construction); Annex B, Sections P and Q; and Annex B, Sections R and S (with the exception of the top two stories which are steel and tile construction). The columns of Sections A through S are cast iron with plaster fireproofing encasement at the basement, first, and second floors. (Other exceptions to mill construction are noted below.)

The floor construction is of five by eight yellow pine flooring, laid with splines, on 14 foot spans between girders without joists. The top of each floor is covered with saturated roofing felt and maple top flooring. The overall floor thickness is six inches. The architects noted that, "The amount of lumber usually put in floor joist is added to the thickness of the ordinary mill flooring, making the floors strong enough to span from one girder to the other without the need of joists."<sup>45</sup> This provided additional head room, a smooth ceiling surface, and room for the sprinklers, air ducts, and pneumatic tubes.

The Tower is bearing wall construction of brick masonry. Interior partition walls in the Tower are clay tile. The Tower roof is steel truss framing with shallow-arched clay tile.

Each fire stair within the main portion of the building and the Annexes is enclosed by brick walls. Stairways, elevators, heating and ventilating ducts, dust chutes, and wire shafts are all constructed with brick walls.

The Box Factory at the west end of Annex B has a concrete structural system, and steel and clay tile roof construction. The basement floor is concrete. The Grocery Building also has a concrete structural system and brick exterior walls.

The train shed and Shipping Court roofs are supported by steel trusses.

The tunnels that extend beneath the basement and the train shed, between Annex A and Annex B, are constructed of concrete that extends to the brick walls of the building. The tunnel ceilings are constructed of steel pan and concrete.

Modifications have been made to the interior structural systems to accommodate the addition of mezzanine levels. In the train shed area, the

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<sup>45</sup> Nimmons and Fellows, "Designing a Great Mercantile Plant," page 408.

tracks were filled in and a floor was added at the second level during the 1940s or 1950s. In Section C of Annex A, a mezzanine level has been added. The columns in this area are timber, and are surrounded by encasements. In Section D, a mezzanine level has also been added. At the second floor, below the center of the courtyard at the east end of the building, the area most recently used for regional sorting of CDS orders has a mezzanine level along the center of the room. This area is wood frame construction with steel columns that extend to support mezzanine. Some of the steel members extend to the steel truss above. In the Shipping Court, a wood stairway extends through the mezzanine level at the center of the space. Stairs and catwalks are located throughout this area. The three bays at the east portion of the Shipping Court were altered circa 1905-1915. The remaining portion of the courtyard retains its original steel truss. The mezzanine extends through the space of the truss.

5. Doors and windows

The main entrance and several of the secondary entrances to the Merchandise Building are non-original, aluminum and glass curtain wall systems with swinging doors, fixed transoms, and fixed sidelights. The entrance to the Grocery Building consists of two sets of metal swing double doors that have been boarded over. Other secondary entrances contain metal and wood doors. Many of the door and windows openings on the first through third floors have been boarded over since the building closed in 1987.

The exterior walls on the outside facades have wood-framed double-hung windows with clear glass. The exterior walls on the courtyard facades have metal-framed wire glass windows. The upper portions of the windows are inward-acting awning units which operate on chains.

At Sections L, M, N, and O, at the fourth through ninth floors, a different type of window unit was used. In each bay there are two sets of metal-framed, wire glass windows. Each set consists of 20 windows, five across by four high. The center six units in each group are outward-opening awning windows.

There are double-hung wood windows covered by wire cages above the rolling shutters, on the south facade adjacent to the railroad tracks.

The windows in the Tower stairwell are double-hung, steel-framed units with wire glass. Windows in the Box Factory are metal-framed units with wire glass on the south facade, and wood-framed, double-hung units with clear glass on the west facade.

In Sections R and S, doors containing a wire glass window and two-part wire glass transoms lead onto the fire escapes. The windows adjacent to the fire doors are wire glass. In all other areas, entrance to the fire escapes is through a wire glass window.

The fire escapes are metal with a metal ladder leading from the roof.

6. **Roof**

The Merchandise Building has a flat roof with an inverted roof membrane system covered by ballast. The roof slopes to drains in the center bay of each section, and is penetrated by vents and stacks. There are several simple brick penthouses with terra cotta copings on the main roof. The roofs over the Merchandise Departments in the Annexes are monitor configuration and contain skylights. The skylights have been roofed over since circa 1950.

The Tower has a steep hipped roof covered with red clay tile. The clay tile was installed to replace the original clay tile roofing in the 1980s.

The train shed roof was originally glazed, and has been covered with a painted sheet roofing over a roofing membrane. A series of vents is located along the ridge of this roof.

The stair tower between Sections P and Q was originally lighted by a skylight above the stair tower. The skylight has been covered over. There were also originally skylights over the stair towers between Sections A and B, C and D, J and K, P and Q, and R and S.

C. **Description of Interior:**

1. **Floor plans**

The building consists of a rectangular east block organized around an interior courtyard that is skylighted above the second floor, and two separate wings (the Annexes) that extend to the west. The main block and wings are nine stories in height. The area between the Annexes contains a hip-roofed train shed that connected to a spur line of the Baltimore and Ohio Railroad.

The Merchandise Building is organized in 12,000 square foot bays divided by fire walls. Each bay served as a merchandise department.

2. **Stairways**

Between each pair of merchandise storage areas in the building is a stairwell surrounded by brick walls. Each stair can be separated from the adjacent bays by sliding metal fire doors.

In the areas of mill construction, the stairs and landings are constructed of timber. In other areas, the stairs are concrete in steel pans, and the landings are concrete.

One of the two original ornamental stairways remains in the main lobby, leading to the third floor. Above the third floor, this stairway is metal pan

and concrete construction, and continues to the fourteenth floor of the Tower.

**3. Flooring**

The flooring is varnished wood, typically maple. In renovated areas of the building, floor finishes include 9 x 9 vinyl tile, ceramic tile, and carpet.

The Grocery Building floors are concrete at the basement, first, and second floors. This third through sixth floors are finished with wood over structural concrete.

The main entrance lobby, located at the east end of the building at the base of the Tower, has been renovated. This space has a terrazzo floor.

**4. Wall and ceiling finish**

The interior faces of the exterior walls in the Merchandise Departments are exposed brick that has been painted. The brickwork at the top of the inside face of both the exterior and courtyard walls is corbeled. The walls within the stairwells are also painted brick.

In typical Tower offices, the walls are painted plaster with wood trim. The walls in offices and break rooms are also painted plaster.

The ceilings in the Merchandise Departments are typically exposed wood that has been painted. At the top floor, the ceiling is a monitor configuration constructed of wood that is painted. At all other floors, the ceiling is a flat wood surface that is painted. The ceilings in the retail store areas are typically painted black. In typical Tower offices, the ceiling is finish plaster over clay tile.

In renovated areas of the building, exterior walls are painted brick, and interior wall finishes include paneling and wallpaper. Some interior partition walls in renovated areas are masonry block that has been painted. The second floor of the Box Factory was used as a cafeteria, and has ceramic tile and plaster walls.

In renovated areas, ceilings are typically dropped acoustical tile systems. The original ceilings are visible above the newer dropped ceilings.

Original features are retained in several spaces, including the fourteenth floor of the Tower. This is a two-story space with a mezzanine level. There is an exterior observation deck accessible through a wood door in each wall. This space has a wood floor and plaster walls and ceiling with ornamental dentilated cove moldings. The windows have arched surrounds with two-full height windows surmounted by a transom. There is an ornamental metal railing at the mezzanine, which is reached by a metal stairway.

5. **Doors and windows**

Interior doors to offices and break rooms are typically wood with glazing in the upper half. Interior sliding fire doors between the Merchandise Departments are metal, and are set in tracks. At the second floor level, openings in the walls surrounding the court were fitted with double steel shutters for fire protection.

In the Shipping Court area and in the Annexes at entrances to the train shed, rolling shutters in the south exterior wall provide access to the railroad tracks. Some of the rolling shutters have been walled over with masonry or wood framing from the interior.

In renovated areas, doors include metal and hollow-core wood doors.

Interior windows include wood-framed glass transoms in the interior walls of break rooms and offices.

6. **Mechanical equipment**

a. **Heating, air conditioning, ventilation**

Heat is provided by a two-pipe steam radiator system. In the Merchandise Departments, one or two radiators are located in each window bay, below the center window, along the exterior walls. In other areas of the building, radiators are typically located along exterior walls. Boilers are located in the Power House across Homan Avenue to the east of the Merchandise Building. Steam is run in pipes through tunnels beneath the basement.

The Tower, and the fourth through sixth floors of the Grocery Building, are air conditioned. In these air conditioned portions of the building, ductwork is suspended from the ceilings. The remainder of the building is not air conditioned, but all merchandise departments and offices are fitted with electric fans. Fresh air is also provided through a duct system. Air conditioning is provided from the Power House. Electrical service was originally provided from the Power House, and was provided from Commonwealth Edison vaults in the basement since the approximately 1950. (The conversion from electricity generated at the Power House to Commonwealth Edison vaults in the different buildings on site occurred between 1945 and 1951. The main Commonwealth Edison line into the site runs beneath Central Park Avenue.)

b. **Lighting**

In some of the Tower offices, older suspended incandescent light fixtures remain in place. Most of the lighting in the building consists of non-original suspended fluorescent fixtures. In some offices, surface-mounted conduit was run across walls and ceilings.

c. Plumbing

The building is sprinklered. There are three storage tanks for the building sprinkler system located at the twelfth floor level in the Tower. Each tank is 63,000 gallons in capacity.

Fire hoses are located in the elevator lobbies.

The Cold Storage freezers are located in the basement of the Grocery Building, Section 12.

Showers have been added in the areas of the tenth and eleventh floor of the Tower, where offices were converted for use as locker rooms.

d. Conveyance Systems

The Merchandise Building has nine electric passenger elevators, located at the Tower, Sections D and I, and Sections 11 and 12. The passenger elevators retain original ornamental surrounds, with ornamental grilles for the exterior doors.

The building also has 26 hydraulic freight elevators, located between each pair of bays that housed the merchandise departments.

Other conveyance systems include the pneumatic tube system used to transmit order tickets, and the conveyors belts and spiral tubes used to transmit order items.

Some original fixtures including portions of the pneumatic tubes and extensive conveyor systems remain throughout the building, in the Merchandise Departments. The seven spiral chutes also remain intact. Extensive equipment remains in Shipping Court, including conveyor systems and sorting bins.

A conveyor that extended around the level of the mezzanine in the Shipping Court to remove empty CDS boxes has been removed. A second conveyor was located in the train shed, and served the returns department. Several other conveyors have been removed.

7. Original furnishings

The principal original furnishings remaining in the Merchandise Building consist of the conveyors and spiral chutes that were used to move goods through the building as part of the order filling, handling, and shipping process. Simple, original wood shelves are also still extant throughout the Merchandise Departments. Some employee break rooms have painted wood benches original to the building.

PART III: SOURCES OF INFORMATION

A. Archival Drawings

Archival copies of the following drawings are included in this HABS documentation. An annotated list of the drawings is included with that portion of the HABS documentation.

**Site Plans**

*Sears, Roebuck and Co., Approximately 1/8 inch to 12 feet, Drawn by Sears Department 198, 4 November 1937.*

*Plot of Sears Complex - Homan-Arthington Area, One inch to 100 feet, Prepared by Sears Departments 730 and 824, 26 October 1960.*

**Architectural Drawings**

*First Floor Plan, 1/16 inch to one foot, Nimmons and Fellows, 16 February 1905.*

*Tower Floor Plans, 1/8 inch to one foot, Nimmons and Fellows, February 1905.*

*North Elevation, 1/8 inch to one foot, Nimmons and Fellows, February 1905 (Date obscured).*

*South Elevation, 1/8 inch to one foot, Nimmons and Fellows, February 1905 (Date obscured).*

*East Elevation, 1/8 inch to one foot, Nimmons and Fellows, February 1905 (Date obscured).*

*West Elevation, 1/8 inch to one foot, Nimmons and Fellows, February 1905 (Date obscured).*

*Transverse and Longitudinal Sections, 1/16 inch to one foot, Nimmons and Fellows, 14 February 1905.*

*Tower Plans and Details, 1/2 inch to one foot or as noted, Nimmons and Fellows, 15 March 1905.*

*Tower Plans and Details, 1/2 inch to one foot or as noted, Nimmons and Fellows; E.C. and R.M. Shankland (Civil Engineers), 15 March 1905.*

*Detail Elevations and Sections, 1/2 inch to one foot, Nimmons and Fellows, February 1905.*

*First Floor Plan - Annex "A" and Annex "B", 1/8 inch to one foot, Nimmons and Fellows, 1905 (Exact date obscured).*

*North Elevation - Annex "A"*, 1/8 inch to one foot, Nimmons and Fellows, 1905 (Exact date obscured).

*South Elevation - Annex "A"*, 1/8 inch to one foot, Nimmons and Fellows, 1905 (Exact date obscured).

*North Elevation - Annex "B"*, 1/8 inch to one foot, Nimmons and Fellows, 1905 (Exact date obscured).

*West Elevation - Annex "A" and Annex "B"*, 1/8 inch to one foot, Nimmons and Fellows, 1905 (Exact date obscured).

*Transverse Section - Annex "A" and Annex "B"*, 1/8 inch to one foot, Nimmons and Fellows, 1905 (Exact date obscured).

*Detail Elevations - Annex "A" and Annex "B"*, 1/2 inch to one foot, Nimmons and Fellows, 1905 (Exact date obscured).

*Fourth Floor Plan* (Annex "A," bays J and K, for floors four through nine), 1/8 inch to one foot, Nimmons and Fellows, 25 January 1910.

*Fourth Floor Plan* (Annex "B," bays P and Q, for floors four through nine), 1/8 inch to one foot, Nimmons and Fellows, 25 January 1910.

*South Elevation* (Annex "A," bays P and Q, for floors four through nine), 1/8 inch to one foot, Nimmons and Fellows, 25 January 1910.

*West Elevation and Transverse Section* (Annex "A," bays P and Q, for floors four through nine), 1/8 inch to one foot, Nimmons and Fellows, 25 January 1910.

*Basement Floor Plan*, 1/8 inch to one foot, George C. Nimmons (?), date obscured (1912).

*North Elevation* (Annex "A," bays L, M, N, and O, for floors four through nine), 1/8 inch to one foot, Nimmons and Fellows, 17 May 1916.

*South Elevation* (Annex "A," bays L, M, N, and O, for floors four through nine), 1/8 inch to one foot, Nimmons and Fellows, 17 May 1916.

*West Elevation* (Annex "A," bays L, M, N, and O, for floors four through nine), 1/8 inch to one foot, Nimmons and Fellows, 17 May 1916.

*Schematic Floor Plan*, 1/64 inch to one foot, Drawn by Sears Department 131, 25 June 1917.

*Fourth Floor Plan* (Two sheets), 1/16 inch to one foot, Larsen-Wulff Architects, Undated.

### **Conveyor and Pneumatic Tube Systems**

*Section through Merchandise Building Looking East Showing System of Conveyors in Shipping Department, 1/4 inch to one foot, Adams and Schwab, 26 April 1905.*

*Conveyors - Merchandise Building, 1/16 inch to one foot, Adams and Schwab, Revised 10 May 1905.*

*Details of Spiral Conveyors in Merchandise Building, 1/8 inch and 1/4 inch to one foot, Adams and Schwab, 13 May 1905.*

*Arrangement of Shipping Room Belt Conveyors in Merchandise Building for Sears, Roebuck and Co., 1/8 inch to one foot, Martin C. Schwab, Undated (probably before 1913).*

*General Layout of All Mdse Dept. Conveyors, 1/16 inch to one foot, Drawn by Sears Department 213 (engineer unknown), 6 October 1916.*

*General Layout of Pneumatic Tubes - Sheets 1, 2, 3, and 9, One inch to 60 feet, Drawn by Sears Department 224 (engineer unknown), Undated (probably around 1920).*

*Rearrangement of Receiving Racks, Conveyors, Etc., 3/16 inch to one foot, Engineer Unknown, Revised 2 November 1937.*

*2nd Floor Section "B", 1/4 inch to one foot, Swain and Meyers, Inc., 24 June 1963*

### **B. Field Record Drawings**

Copies of the following drawings are included in the field record with this HABS documentation. An annotated list of the drawings is included with the field record.

#### **Site Plan Drawings**

*Plat of Survey, One inch to twenty feet, Gustav H. Carlson (surveyor), 30 January 1905.*

#### **Architectural Drawings**

*North Elevation, 1/16 inch to one foot, Nimmons and Fellows, February 1905 (Date obscured).*

*Wall Section Detail, scale as noted, Nimmons and Fellows; E.C. and R.M. Shankland (Civil Engineers), 16 February 1905.*

*Basement Floor Plan - Annex "A" and Annex "B", 1/8 inch to one foot, Nimmons and Fellows, 1905 (Exact date obscured).*

*Second Floor Plan - Annex "A" and Annex "B", 1/8 inch to one foot, Nimmons and Fellows, 1905 (Exact date obscured).*

*Third Floor Plan - Annex "A" and Annex "B"*, 1/8 inch to one foot, Nimmons and Fellows, 1905 (Exact date obscured).

*Roof Plan - Annex "A" and Annex "B"*, 1/8 inch to one foot, Nimmons and Fellows, 1905 (Exact date obscured).

*South Elevation - Annex "B"*, 1/8 inch to one foot, Nimmons and Fellows, 1905 (Exact date obscured).

*Details of Platforms*, 1/8 inch to one foot, Nimmons and Fellows, 1905 (Exact date obscured).

*Ninth Floor Plan* (Annex "A," bays J and K, for floors four through nine), 1/8 inch to one foot, Nimmons and Fellows, 25 January 1910.

*Roof Plan* (Annex "A," bays J and K, for floors four through nine), 1/8 inch to one foot, Nimmons and Fellows, 25 January 1910.

*Detail Elevation* (Annexes "A" and "B," for floors four through nine), 1/8 inch to one foot, Nimmons and Fellows, 25 January 1910.

*Roof Plan* (Annex "A," bays L, M, N, and O, for floors four through nine), 1/8 inch to one foot, Nimmons and Fellows, 17 May 1916.

*Layout of Merchandise Building*, 1/64 inch to one foot, Drawn Sears Department 131, 25 June 1917.

*Floor Plan - 14th Floor Tower*, 3/8 inch to one foot, Drawn by Sears Department 224, 19 March 1923.

*Alterations to Merchandise Building for Retail Store*, 1/16 inch to one foot, George C. Nimmons and Company, Revised 22 December 1924.

*Floor Plan of First Floor Merchandise*, 1/16 inch to one foot, Drawn by Sears Department 224, 26 December 1924.

*Entrance Remodeling - Plans and Details*, scale as noted, John Stokes Redden, 14 April 1961.

#### Conveyor and Pneumatic Tube Systems

*Pneumatic Tube Station*, Three inches to one foot, Adams and Schwab, Revised 28 December 1905.

*General Arrangement of Empty Box Conveyor for Sears, Roebuck and Co.*, 1/16 inch to one foot, Martin C. Schwab, Revised 27 March 1913.

*Arrangement Showing Billing and Empty Basket Return Belts in Shipping Room for Sears, Roebuck and Co.*, 1/8 inch to one foot, Martin C. Schwab, Revised 12 December 1914.

*Spiral Chute to be Installed in N.W. Corner Section L in the Merchandise Building, 1/4 inch to one foot, Martin C. Schwab, 28 May 1919.*

*Extension to Present Spiral Gravity Conveyor in Section "H" of the Merchandise Building, 1/4 inch to one foot, Martin C. Schwab, 9 July 1919.*

*General Layout of Pneumatic Tubes - Sheets 4 through 8, and 10 through 14, One inch to 60 feet, Drawn by Sears Department 224 (engineer unknown), Undated (probably around 1920).*

*Conveyor Plan for Post Office in Merchandise Building, 1/8 inch to one foot, Martin C. Schwab, 4 June 1920.*

*Space Occupied by Post Office at Sears-Roebuck Mail Order House, 1/8 inch to one foot, Drawn by the United States Post Office, October 1944.*

*Department 155 Layout - Second Floor Truck Court, 1/8 inch to one foot, Drawn by Sears Department 131M (Engineer Unknown), Revised 20 May 1965.*

#### C. Early Views

*Overall view of Merchandise Building, view to southwest during construction. Photograph circa 1905, original print in Archives, Public Affairs Department, Sears Merchandise Group, Hoffman Estates, Illinois. Photographer unknown.*

*Overall view of Merchandise Building, view to northeast during construction. Photograph circa 1905, original print in Archives, Public Affairs Department, Sears Merchandise Group, Hoffman Estates, Illinois. Photographer unknown.*

*Merchandise Building, northeast corner. Photograph circa 1910, original print in Archives, Public Affairs Department, Sears Merchandise Group, Hoffman Estates, Illinois. Photographer unknown.*

*Panoramic view of north side of Merchandise Building with athletic field in foreground. Photograph dated August, 1911, original print in Archives, Public Affairs Department, Sears Merchandise Group, Hoffman Estates, Illinois. Photographer unknown.*

*View of train spur and entrance to train shed at west side of Merchandise Building. Photograph (retouched) circa 1917, original print in Archives, Public Affairs Department, Sears Merchandise Group, Hoffman Estates, Illinois. Photographer unknown.*

*Aerial view of Merchandise Building, view to southwest. Photograph dated 1964, original print in Archives, Public Affairs Department, Sears Merchandise Group, Hoffman Estates, Illinois. Photographer unknown.*

*Interior view of Merchandise Building, train shed, view to east. Photograph circa 1910, original print in Archives, Public Affairs Department, Sears Merchandise Group, Hoffman Estates, Illinois. Photographer unknown.*

Sears, Roebuck and Company Mail Order Plant, Merchandise Building  
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*Interior view of Merchandise Building, north pneumatic tube station, Section H, basement, view to southwest.* Photograph (retouched) circa 1918, original print in Archives, Public Affairs Department, Sears Merchandise Group, Hoffman Estates, Illinois. Photographer unknown.

*Interior view of Merchandise Building, typical merchandise department.* Photograph circa 1918, original print in Archives, Public Affairs Department, Sears Merchandise Group, Hoffman Estates, Illinois. Photographer unknown.

*Interior view of Merchandise Building, labeling portion of shipping department.* Photograph circa 1918, original print in Archives, Public Affairs Department, Sears Merchandise Group, Hoffman Estates, Illinois. Photographer unknown.

*Interior view of Merchandise Building, shipping court, second floor.* Photograph (retouched) circa 1918, original print in Archives, Public Affairs Department, Sears Merchandise Group, Hoffman Estates, Illinois. Photographer unknown.

*Interior view of Merchandise Building, packaging department second floor.* Photograph (retouched) circa 1920, original print in Archives, Public Affairs Department, Sears Merchandise Group, Hoffman Estates, Illinois. Photographer unknown.

*Interior view of Merchandise Building, shipping court, third floor.* Photograph (retouched) circa 1920s, original print in Archives, Public Affairs Department, Sears Merchandise Group, Hoffman Estates, Illinois. Photographer unknown.

D. Interviews

Interviews of Mr. Thomas Dorgan, Building Manager, Charles H. Shaw Company, at Sears, Roebuck and Company Mail Order Plant, Administration Building, by Jeffrey P. Koerber, Wiss, Janney, Elstner Associates, Inc., Chicago, Illinois, February-March, 1994.

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Nimmons, George C. "Modern Industrial Plants: Part IV - Discussion of the Various Types of Windows for Industrial Buildings." *The Architectural Record*, February 1919, pp. 148-168.

Nimmons, George C. "Modern Industrial Plants: Part V - The Great Army Supply Bases and Quartermasters' Terminals of the United States Government Constructed Along the Eastern Coast for War Purposes." *The Architectural Record*, March 1919, pp. 262-282.

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